

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Bradley C. Wright, Reg. No. 38,061, on 07/12/2011.

The application has been amended as follows:

Please replace the original claims 1-4, 7-9, 11-20, 23-31, 34, 37-44, 47, and 48 with the following amended claims.

1. (Currently Amended) A method, comprising:
in a first cell, receiving from a base station corresponding to the first cell, a broadcast administrative message communicating multicast information for a plurality of cells comprising the first cell of a first access type, a neighboring horizontal cell of the first access type, and a vertical cell of a second access type, wherein said multicast information includes session information including a multicast IP address for a multicast session, mapping information indicating in which cells the multicast session may be

received, topology information mapping logical cells to physical cells, and link-level access parameters usable to connect to the multicast session;

tuning to the multicast session in the first cell using the received multicast information; and

when a predetermined condition occurs, tuning to the multicast session in one of the horizontal neighboring cell and the vertical cell using the received multicast information.

2. (Currently Amended) The method of claim 1, wherein the multicast information comprises a session identifier.

3. (Currently Amended) The method of claim 1, wherein the multicast information comprises a frequency.

4. (Currently Amended) The method of claim 1, wherein the multicast information comprises a session title.

7. (Currently Amended) The method of claim 1, wherein each tuning comprises receiving a digital video broadcast terrestrial (DVB-T) multicast session.

8. (Currently Amended) The method of claim 1, wherein each tuning comprises receiving a UMTS multicast session.

9. (Currently Amended) A method, comprising:

in a first cell, receiving from a base station corresponding to the first cell, multicast information for a plurality of cells comprising the first cell of a first access type, a neighboring horizontal cell of the first access type, and a vertical cell of a second access type, wherein said multicast information includes session information including a multicast IP address for a multicast session, mapping information indicating in which cells the multicast session may be received, topology information mapping logical cells to physical cells, and link-level access parameters usable to connect to the multicast session;

tuning to the multicast session in the first cell using the received multicast information; and

when a predetermined condition occurs, tuning to the multicast session in one of the horizontal neighboring cell and the vertical cell using the received multicast session information, wherein each tuning comprises using the link-level access parameters to tune to the multicast session in each cell.

11. (Currently Amended) The method of claim 1, further comprising the step of periodically receiving multicast session announcements including the multicast information while tuned to the multicast session in the first cell.

12. (Currently Amended) An apparatus, comprising:

a processor; and

memory for storing computer readable instructions that, when executed by the processor, cause the apparatus to perform:

in a first cell, receiving from a base station corresponding to the first cell, a broadcast message communicating multicast information for a plurality of cells comprising the first cell of a first access type, a neighboring horizontal cell of the first access type, and a vertical cell of a second access type, wherein said multicast information includes session information including a multicast IP address for a multicast session, mapping information indicating in which cells the multicast session may be received, topology information mapping logical cells to physical cells, and link-level access parameters usable by the apparatus to connect to the multicast session;

tuning to the multicast session in the first cell using the received multicast information; and

when a predetermined condition occurs, tuning to the multicast session in one of the horizontal neighboring cell and the vertical cell using the received multicast information.

13. (Currently Amended) The apparatus of claim 12, wherein the multicast information comprises a session identifier.

14. (Currently Amended) The apparatus of claim 12, wherein the multicast information comprises a frequency.

15. (Currently Amended) The apparatus of claim 12, wherein the multicast information comprises a session title.

16. (Currently Amended) The apparatus of claim 12, wherein each tuning comprises receiving a digital video broadcast terrestrial (DVB-T) multicast session.

17. (Currently Amended) The apparatus of claim 12, wherein each tuning comprises receiving a UMTS multicast session.

18. (Currently Amended) The apparatus of claim 12, wherein each tuning comprises using the link-level access parameters to tune to the multicast session in each cell.

19. (Currently Amended) The apparatus of claim 12, wherein the computer readable instructions, when executed by the processor, further cause the apparatus to perform joining an IP multicast group in the first cell.

20. (Currently Amended) The apparatus of claim 12, wherein the computer readable instructions, when executed by the processor, further cause the apparatus to perform periodically receiving multicast session announcements including the multicast information while tuned to the multicast session in the first cell.

23. (Currently Amended) A computer readable medium storing computer readable instructions that, when executed, cause a data processing device to perform:

in a first cell, receiving from a base station corresponding to the first cell, a broadcast message communicating multicast session information for a plurality of cells comprising the first cell of a first access type, a neighboring horizontal cell of the first access type, and a vertical cell of a second access type, wherein said multicast information includes session information including a multicast IP address for a multicast session, mapping information indicating in which cells the multicast session may be received, topology information mapping logical cells to physical cells, and link-level access parameters usable by the data processing device to connect to the multicast session;

tuning to the multicast session in the first cell using the received multicast information; and

when a predetermined condition occurs, tuning to the multicast session in one of the horizontal neighboring cell and the vertical cell using the received multicast session information.

24. (Currently Amended) The computer readable medium of claim 23, wherein the multicast information comprises a session identifier.

25. (Currently Amended) The computer readable medium of claim 23, wherein the multicast information comprises a frequency.

26. (Currently Amended) The computer readable medium of claim 23, wherein the multicast information comprises a session title.

27. (Currently Amended) The computer readable medium of claim 23, wherein each tuning comprises receiving a digital video broadcast terrestrial (DVB-T) multicast session.

28. (Currently Amended) The computer readable medium of claim 23, wherein each tuning comprises receiving a UMTS multicast session.

29. (Currently Amended) The computer readable medium of claim 23, wherein each tuning comprises using the link-level access parameters to tune to the multicast session in each cell.

30. (Currently Amended) The computer readable medium of claim 23, wherein the computer readable instructions, when executed by the processor, further cause the data processing device to perform joining an IP multicast group in the first cell.

31. (Currently Amended) The computer readable medium of claim 23, wherein the computer readable instructions, when executed by the processor, further cause the data processing device to perform periodically receiving multicast session announcements including the multicast information while tuned to the multicast session in the first cell.

34. (Currently Amended) A method, comprising:
tuning to a logical announcement channel;
receiving a session announcement corresponding to a multicast session, the session announcement comprising information that maps link-level access parameters in each of a plurality of cells to the multicast session, wherein said session announcement includes a session identifier, session information including metadata regarding the multicast session, and session cell mapping information indicating those cells in which the multicast session with the specified session identifier is available;
receiving the multicast session in a first cell of the plurality of cells using the first cell's received link-level access parameters; and
when reception of the multicast session in the first cell changes from a first signal strength, receiving the multicast session in a second cell of the plurality of cells using the second cell's link-level access parameters contained in the session announcement.

37. (Currently Amended) An apparatus, comprising:
a processor; and

memory for storing computer readable instructions that, when executed, cause the apparatus to perform:

wirelessly receiving from a base station corresponding to a first cell, a broadcast message communicating multicast information for the first cell of a first access type, a neighboring horizontal cell of the first access type, and a vertical cell of a second access type, wherein said multicast information includes session information including a multicast IP address for a multicast session, mapping information indicating in which cells the multicast session may be received, topology information mapping logical cells to physical cells, and link-level access parameters usable by the apparatus to connect to the multicast session;

wirelessly tuning to the multicast session broadcast by the base station corresponding to the first cell using the received multicast information for the first cell; and

when a predetermined condition occurs, wirelessly tuning to a corresponding multicast session broadcast by a base station corresponding to the horizontal neighboring cell using the received multicast information for the horizontal neighboring cell.

38. (Currently Amended) The apparatus of claim 37, wherein each multicast information comprises a session identifier.

39. (Currently Amended) The apparatus of claim 37, wherein each multicast information comprises a frequency.

40. (Currently Amended) The apparatus of claim 37, wherein each multicast information comprises a session title.

41. (Currently Amended) The apparatus of claim 37, wherein each tuning comprises wirelessly receiving a digital video broadcast terrestrial (DVB-T) multicast session.

42. (Currently Amended) The apparatus of claim 37, wherein each tuning comprises wirelessly receiving a UMTS multicast session.

43. (Currently Amended) The apparatus of claim 37,
wherein each tuning comprises using the link-level access parameters to tune to
the multicast session in each respective cell.

44. (Currently Amended) The apparatus of claim 37, wherein the computer readable instructions, when executed by the process, further cause the apparatus to perform periodically receiving multicast session announcements including the multicast information while tuned to the multicast session in the first cell.

47. (Currently Amended) A method, comprising:

prior to determining that a handoff from a first cell to different cell should be made for a mobile terminal located in the first cell, transmitting from a base station corresponding to the first cell, a broadcast message communicating multicast information for a plurality of cells comprising the first cell of a first access type, a neighboring horizontal cell of the first access type, and a vertical cell of a second access type, wherein said multicast information includes session information including a multicast IP address for a multicast session, mapping information indicating in which cells the multicast session may be received, topology information mapping logical cells to physical cells, and link-level access parameters usable by the mobile terminal to connect to the multicast session;

receiving, by the mobile terminal in the first cell, the broadcast message communicating the multicast information;

tuning the mobile terminal to receive to the multicast session in the first cell using the received multicast information; and

when a predetermined condition occurs, tuning the mobile terminal to receive the multicast session in one of the horizontal neighboring cell and the vertical cell using the received multicast information.

48. (Currently Amended) An apparatus, comprising:
a processor; and

memory for storing computer readable instructions that, when executed, cause the apparatus to:

tune to a logical announcement channel;

receive a session announcement corresponding to a multicast session, the session announcement comprising information that maps link-level access parameters in each of a plurality of cells to the multicast session, wherein said session announcement includes a session identifier, session information including metadata regarding the multicast session, and session cell mapping information indicating those cells in which the multicast session with the specified session identifier is available;

receive the multicast session in a first cell of the plurality of cells using the first cell's received link-level access parameters; and

when reception of the multicast session in the first cell changes from a first signal strength, receive the multicast session in a second cell of the plurality of cells using the second cell's link-level access parameters contained in the session announcement.

(End of Amendment).

Allowable Subject Matter

2. Claims 1-50 are allowed.
3. The examiner's reason for allowing the independent claims 1, 9, 12, 23, 34, 37, 47, and 48 are presented based on Examiner initiated interview on 07/12/2011 and Examiner amendment.

Regarding claims 2-8, 10, 11, 13-22, 24-33, 35, 36, 38-46, 49, and 50, the claims are allowed as being dependent of claims 1, 12, 23, 34, 37, and 48, respectively.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DOMINIC E. REGO whose telephone number is (571)272-8132. The examiner can normally be reached on Monday-Friday, 9:00 am-5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc M. Nguyen can be reached on 571-272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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